

Little Falls Dam

Willow River State Park

Frequently Asked Questions 2 (May 2015 Public Meeting Results)

May 2015

1. What is the reason for the drawdown and what are the current issues with the dam?

- The Little Falls dam has structural problems and insufficient flood flow capacity. The issues with the dam increase the probability of a dam failure. The DNR is minimizing the risk of dam failure by drawing down the impoundment reducing the impact downstream should the dam structure fail. Identified issues with the dam include:
 - Inadequate spillway capacity
 - Three of four gates are in poor condition; two of four gates are completely inoperable
 - Seepage along multiple arch buttress section indicating poor dam foundation
 - Seepage at powerhouse and gate two indicating structural movement and poor dam foundation
 - Ogee spillway is the oldest section of the dam; cannot be adequately inspected at full pool; built on a questionable timber crib and experiencing uncontrolled seepage at the contact point between the right abutment and the bedrock indicating a possible foundation problem and a continually deteriorating probable failure point
 - Powerhouse abandonment construction process is unknown

2. How will sediment be managed?

- The department will do everything possible to minimize the amount of sediment, to the maximum extent practicable. The behavior and make-up of the sediment will not be known until the drawdown begins. Sediment will be managed in phases throughout the drawdown and after. There are several methods to minimize sediment transport and the department will determine the best and most practical methods to implement depending on the results of the drawdown. These methods could include but are not limited to the use of check-dams, grade control structures, dredging and impoundment seeding.

3. What is the reason for the timing of the June 2015 drawdown versus completing the drawdown in the past or in the coming years?

- Subsequent inspections and reviews of the dam and issues have determined that the foundation is in poor or questionable condition at best. Past information did not warrant a drawdown of the impoundment. Given the current information, the department has

chosen to reduce the risk and impacts of a dam failure by drawing down the impoundment. Waiting until a future date to drawdown the impoundment only increases the risk of failure and downstream catastrophic damage with each rain and freeze/thaw event.

4. What is the Q100 and Q1000 and how long has the dam been out of compliance with this capacity?

- To be in compliance the dam must be able to safely pass the 100-year (Q100) flood flow through the principal spillway and have a total spillway capacity to pass the 1000-year (Q1000) flood. The 100-year flow is 13,099 cfs and the 1000-year flow is 16,700 cfs; the current spillway capacity with all gates operational can pass 6,750 cfs. The Q100 and Q1000 were determined through the 2009 Flood Insurance study completed by Federal Emergency Management Association (FEMA). These flood flows were used in the calculation and modeling of a dam failure analysis (DFA). When the DFA was adopted and the hazard rating assigned on January 6, 2014 the dam was identified at that time as being out of compliance. The dam must be upgraded to pass the required flows within 10 years of the date of DFA adoption.

5. What is the funding request process for this project and what funding sources are available?

- Department staff will be meeting with the Department of Administration to discuss approval of the currently proposed funding of \$3.0 million. Additionally, staff will begin discussions of the process to obtain additional funding if necessary. The funding process is very fluid and ever changing depending on the budget threshold, scope of work and timing of the project. All funding sources including local, state funds and grants as well as federal funds will be pursued if the solution to bring the dam back into compliance exceeds available funding.

6. What is the economic impact to Willow River State Park and the surrounding communities as a result of this drawdown?

- The economic impact to the park and surrounding communities is not known at this time and may not be known until sometime after the drawdown is complete. We will be evaluating this as we work to develop the Strategic Alternatives Analysis paper.

7. What is the impact to the fish and wildlife resources as a result of the drawdown?

- The proposed drawdown is not expected to cause the incidental take of any state-listed species. The drawdown will provide new habitat for

migratory shorebirds and wading birds. It is expected to see a reduction in the number of waterfowl and insectivores using the area during the drawdown due to a loss of surface water. Reptiles and amphibians will be displaced due to a loss of habitat during the drawdown until re-flooding occurs. Habitat for aquatic furbearers will decline; however, no impact to the local population is expected.

8. How will information be disseminated and collected throughout this project?

- Information regarding future meetings, project information and documents can be found on the park's website listed below. On this website you can sign up for Gov Delivery messages that will be sent out throughout the course of the project.
- <http://dnr.wi.gov/topic/parks/name/willowriver/littlefallsdam.html>

9. What are the alternatives to address the dam and how will the decision be made?

- The three main alternatives are partial dam replacement, full dam replacement or dam removal and restoration. The three alternatives will be outlined in a Strategic Alternatives Analysis Paper which will be developed over the summer. Information in this paper includes a background and history; project restrictions and risks; proposed project schedule; stakeholder/public/visitor input summary; an evaluation of the impacts to natural resources, the property, public and social impacts and the economic impacts and maps, modeling and any other data or information collected regarding the impoundment or river channel. The department administration will review all of the information included in this document in addition to the feasibility study, inspections and history of the dam to make a decision on the best and most appropriate alternative to address the dam. The DNR administration may choose to consult with other agencies or the Governor's office when making this decision.

10. What impact will the removal of the other two dams at this property have on the Little Falls dam?

- The past decisions to not fund the replacement of those dams will not have an impact on whether or not to fund or not fund the chosen alternative for the Little Falls dam. The physical impacts of those dam removals including the sediment deposited in the impoundment and what effects the removal may have had on the river channel will be taken into consideration.